

Name: _____

at1110paper_practice_test (v19)

1. Solve the equation.

$$7x^2 - 24x - 74 = 4x^2 - 5x - 2$$

$$3x^2 - 19x - 72 = 0$$

$$(3x + 8)(x - 9) = 0$$

$$x = \frac{-8}{3} \quad x = 9$$

2. Expand the following expression into standard form.

$$(2x - 9)(2x + 9)$$

$$4x^2 + 18x - 18x - 81$$

$$4x^2 - 81$$

3. Factor the expression.

$$25x^2 - 49$$

$$(5x - 7)(5x + 7)$$

4. Solve the equation with factoring by grouping.

$$8x^2 + 20x - 6x - 15 = 0$$

$$(4x - 3)(2x + 5) = 0$$

$$x = \frac{3}{4} \quad x = \frac{-5}{2}$$

5. Expand the following expression into standard form.

$$(2x + 7)^2$$

$$\begin{aligned}4x^2 + 14x + 14x + 49 \\4x^2 + 28x + 49\end{aligned}$$

6. Solve the equation.

$$(3x + 7)(5x - 4) = 0$$

$$x = \frac{-7}{3} \quad x = \frac{4}{5}$$

7. Factor the expression.

$$x^2 + 11x + 28$$

$$(x + 4)(x + 7)$$

8. Expand the following expression into standard form.

$$(4x - 9)(6x + 5)$$

$$\begin{aligned}24x^2 + 20x - 54x - 45 \\24x^2 - 34x - 45\end{aligned}$$